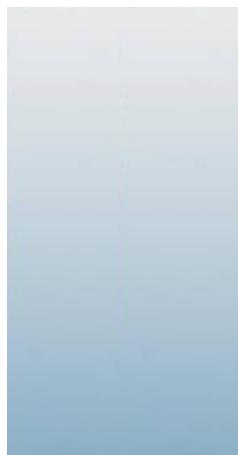




07/21/11



## Gulf Coast

LABORATORIES

### Technical Report for

#### URS Corporation

UTC-Metzler/ 3200 Main St. Keokuk, IA

16529904

Accutest Job Number: T79594

Sampling Date: 06/23/11

#### Report to:

URS Corporation  
8300 College Blvd. Suite 200  
Overland Park, KS 66210  
David\_Dods@URSCorp.com

ATTN: Mr. David Dods

Total number of pages in report: 77



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

*Paul K Canevaro*

**Paul Canevaro**  
**Laboratory Director**

Client Service contact: Georgia Jones 713-271-4700

Certifications: TX (T104704220-10-3) AR (88-0756) AZ (AZ0769) FL (E87628) KS (E-10366)  
LA (85695/04004) OK (9103)

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Test results relate only to samples analyzed.

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## Sample Summary

**URS Corporation**Job No: **T79594****UTC-Metzler/ 3200 Main St. Keokuk, IA**  
**Project No: 16529904**

Sample Number	Collected Date	Time By	Matrix Received	Code Type	Client Sample ID	
T79594-1	06/23/11	08:35	06/24/11	AQ	Ground Water	MW-13A-2011
T79594-1F	06/23/11	08:35	06/24/11	AQ	Groundwater Filtered	MW-13A-2011 (DISSOLVED)
T79594-2	06/23/11	09:55	06/24/11	AQ	Ground Water	MW-13-2011
T79594-2F	06/23/11	09:55	06/24/11	AQ	Groundwater Filtered	MW-13-2011 (DISSOLVED)
T79594-3	06/23/11	09:55	06/24/11	AQ	Ground Water	MW-13-2011-DUP
T79594-3F	06/23/11	09:55	06/24/11	AQ	Groundwater Filtered	MW-13-2011-DUP (DISSOLVED)
T79594-4	06/23/11	11:40	06/24/11	AQ	Ground Water	MW-13B-2011
T79594-4F	06/23/11	11:40	06/24/11	AQ	Groundwater Filtered	MW-13B-2011 (DISSOLVED)
T79594-5	06/23/11	12:10	06/24/11	AQ	Equipment Blank	EB-13B-2011
T79594-6	06/23/11	00:00	06/24/11	AQ	Trip Blank Water	TRIP BLANK



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** URS Corporation

**Job No** T79594

**Site:** UTC-Metzler/ 3200 Main St. Keokuk, IA

**Report Date** 7/12/2011 12:21:26 PM

9 Samples and 1 Trip Blank were collected on 06/23/2011 and received at Accutest on 06/24/2011 properly preserved, at 0.7 Deg. C and intact. These Samples received an Accutest job number of T79594. A listing of the Laboratory Sample ID, Client Sample ID and date of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ

**Batch ID:** VG105

- All samples were analyzed within the recommended method holding time.
- The method blank for this batch met method specific criteria.
- Sample(s) T79519-1MS, T79519-1MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for 2-Hexanone, 4-Methyl-2-pentanone, n-Butyl Alcohol are outside control limits. Probable cause due to matrix interference.
- Matrix Spike Duplicate Recovery for 2-Hexanone was outside control limits. Probable cause due to matrix interference.
- RPD(s) for MSD for Chloroethane, n-Butyl Alcohol are outside control limits for sample T79519-1MSD. Probable cause due to matrix interference.

**Matrix:** AQ

**Batch ID:** VG106

- All samples were analyzed within the recommended method holding time.
- Sample(s) T79519-3MS, T79519-3MSD were used as the QC samples indicated.
- The method blank for this batch met method specific criteria.
- Matrix Spike Recovery(s) for 2-Hexanone, 4-Methyl-2-pentanone, Isobutyl alcohol are outside control limits. Probable cause due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for 2-Hexanone, 4-Methyl-2-pentanone are outside control limits. Probable cause due to matrix interference.
- RPD for MSD for Isobutyl alcohol was outside control limits for sample T79519-3MSD.
- Sample T79519-3MSD had a surrogates outside control limits. Probable cause due to matrix interference.
- T79519-3MSD for Toluene-D8: Outside control limits biased low.

**Matrix:** AQ

**Batch ID:** VX1090

- All samples were analyzed within the recommended method holding time.
- The method blank for this batch met method specific criteria.
- Sample(s) T79665-1MS, T79665-1MSD were used as the QC samples indicated.

## Volatiles by GC By Method RSKSOP-147/175

**Matrix:** AQ

**Batch ID:** F:GFF518

- T79594-1: Analysis performed at Accutest Laboratories, Orlando, FL.
- T79594-4: Analysis performed at Accutest Laboratories, Orlando, FL.
- T79594-2: Analysis performed at Accutest Laboratories, Orlando, FL.
- T79594-3: Analysis performed at Accutest Laboratories, Orlando, FL.

**Matrix:** AQ

**Batch ID:** F:GFF519

- T79594-1: Analysis performed at Accutest Laboratories, Orlando, FL.
- T79594-3: Analysis performed at Accutest Laboratories, Orlando, FL.

## Metals By Method SW846 6010B

**Matrix:** AQ

**Batch ID:** MP15083

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- The method blank for this batch met method specific criteria.
- Sample(s) T79588-1FDUP, T79588-1FMS, T79588-1FMSD, T79588-1FSSDL were used as the QC samples for metals.

## Wet Chemistry By Method EPA 300/SW846 9056

**Matrix:** AQ

**Batch ID:** GP13744

- All samples were analyzed within the recommended method holding time.
- The method blank for this batch met method specific criteria.
- Sample(s) T79594-2DUP, T79594-2MS were used as the QC samples for Chloride abd Sulfate,

## Wet Chemistry By Method EPA 353.2

**Matrix:** AQ

**Batch ID:** GP13604

- All samples were analyzed within the recommended method holding time.
- The method blank for this batch met method specific criteria.
- Sample(s) T79594-2DUP, T79594-2MS were used as the QC samples for Nitrogen, Nitrite.

**Matrix:** AQ

**Batch ID:** GP13605

- All samples were analyzed within the recommended method holding time.
- The method blank for this batch met method specific criteria.
- Sample(s) T79594-2DUP, T79594-2MS were used as the QC samples for Nitrogen, Nitrate + Nitrite.

**Matrix:** AQ

**Batch ID:** R33713

- T79594-2 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

**Matrix:** AQ

**Batch ID:** R33714

- T79594-1 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

**Matrix:** AQ

**Batch ID:** R33715

- T79594-3 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

**Matrix:** AQ

**Batch ID:** R33716

- T79594-4 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

## Wet Chemistry By Method SM 2320B

**Matrix:** AQ

**Batch ID:** GN32679

- All samples were analyzed within the recommended method holding time.
- The method blank for this batch met method specific criteria.
- Sample(s) T79394-1DUP, T79394-1MS were used as the QC samples for Alkalinity, Total as CaCO<sub>3</sub>.

## Wet Chemistry By Method SM 4500S+F

**Matrix:** AQ

**Batch ID:** GN32536

- All method blanks for this batch meet method specific criteria.
- All samples were analyzed within the recommended method holding time.
- Sample(s) T795942-2DUP, T79542-2MS were used as the QC samples for Sulfide.

## Wet Chemistry By Method SM5310B/9060A

**Matrix:** AQ

**Batch ID:** GP13722

- All samples were analyzed within the recommended method holding time.
- The method blank for this batch met method specific criteria.
- Sample(s) T79510-1DUP, T79510-1MS were used as the QC samples for Total Organic Carbon.

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Accutest Laboratories Gulf Coast, Inc.

**Job No:** T79594

**Site:** URSKSOP: UTC-Keokuk

**Report Date** 7/11/2011 3:49:50 PM

4 Samples were collected on 06/23/2011 and were received at Accutest, SE on 06/28/2011 properly preserved, at 2.8 Deg. C and intact. These Samples received an Accutest job number of T79594. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GC By Method RSKSOP-147/175

**Matrix:** AQ

**Batch ID:** GFF518

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F83555-1MS, F83590-1DUP were used as the QC samples indicated.

**Matrix:** AQ

**Batch ID:** GFF519

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) T79594-3DUP, F83644-4MS were used as the QC samples indicated.

Matrix Spike Recovery(s) for Methane are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Lovelie Metzgar, QA Assistant (signature on file)

Date: July 11, 2011



## Sample Results

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## Report of Analysis

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## Report of Analysis

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Client Sample ID:	MW-13A-2011	Date Sampled:	06/23/11
Lab Sample ID:	T79594-1	Date Received:	06/24/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC-Metzler/ 3200 Main St. Keokuk, IA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G002448.D	1	06/30/11	JL	n/a	n/a	VG105
Run #2							

Purge Volume
Run #1    5.0 ml
Run #2

## SW-846 8260B

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	0.0043	0.0010	0.00025	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
71-36-3	n-Butyl Alcohol	ND	0.050	0.033	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
156-59-2	cis-1,2-Dichloroethylene	0.0012	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
540-59-0	1,2-Dichloroethene (total)	0.0012	0.0020	0.00054	mg/l	J
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
110-54-3	Hexane	ND	0.0020	0.00066	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
78-83-1	Isobutyl alcohol	ND	0.050	0.023	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	

ND = Not detected      MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	<b>MW-13A-2011</b>	<b>Date Sampled:</b>	<b>06/23/11</b>
<b>Lab Sample ID:</b>	<b>T79594-1</b>	<b>Date Received:</b>	<b>06/24/11</b>
<b>Matrix:</b>	<b>AQ - Ground Water</b>	<b>Percent Solids:</b>	<b>n/a</b>
<b>Method:</b>	<b>SW846 8260B</b>		
<b>Project:</b>	<b>UTC-Metzler/ 3200 Main St. Keokuk, IA</b>		

**SW-846 8260B**

CAS No.	Compound	Result	RL	MDL	Units	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	0.0014	0.0010	0.00036	mg/l	
75-01-4	Vinyl chloride	0.00094	0.0010	0.00040	mg/l	J
1330-20-7	Xylene (total)	0.00081	0.0030	0.00071	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		79-122%
17060-07-0	1,2-Dichloroethane-D4	87%		75-121%
2037-26-5	Toluene-D8	91%		87-119%
460-00-4	4-Bromofluorobenzene	91%		80-133%

ND = Not detected      MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	<b>MW-13A-2011</b>	<b>Date Sampled:</b>	<b>06/23/11</b>
<b>Lab Sample ID:</b>	<b>T79594-1</b>	<b>Date Received:</b>	<b>06/24/11</b>
<b>Matrix:</b>	<b>AQ - Ground Water</b>	<b>Percent Solids:</b>	<b>n/a</b>
<b>Method:</b>	<b>RSKSOP-147/175</b>		
<b>Project:</b>	<b>UTC-Metzler/ 3200 Main St. Keokuk, IA</b>		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	FF12499.D	1	06/30/11	AFL	n/a	n/a	F:GFF518
Run #2 <sup>a</sup>	FF12511.D	10	07/01/11	AFL	n/a	n/a	F:GFF519

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	5.71 <sup>b</sup>	0.0050	0.0016	mg/l	
74-84-0	Ethane	0.0022	0.0010	0.00032	mg/l	
74-85-1	Ethene	ND	0.0010	0.00043	mg/l	

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

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Client Sample ID:	MW-13A-2011	Date Sampled:	06/23/11
Lab Sample ID:	T79594-1	Date Received:	06/24/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	UTC-Metzler/ 3200 Main St. Keokuk, IA		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO <sub>3</sub>	352	10	mg/l	1	07/05/11 10:00	MC	SM 2320B
Chloride	1760	50	mg/l	100	07/04/11 16:42	ES	EPA 300/SW846 9056
Nitrogen, Nitrate <sup>a</sup>	0.14	0.11	mg/l	1	06/24/11 17:53	CV	EPA 353.2
Nitrogen, Nitrate + Nitrite	0.25	0.10	mg/l	1	06/24/11 17:53	CV	EPA 353.2
Nitrogen, Nitrite	0.11	0.010	mg/l	1	06/24/11 17:01	CV	EPA 353.2
Sulfate	2.8	0.50	mg/l	1	07/04/11 22:22	ES	EPA 300/SW846 9056
Sulfide	< 0.80	0.80	mg/l	1	06/30/11 09:00	KD	SM 4500S+ F
Total Organic Carbon	29.4	1.0	mg/l	1	07/03/11 11:24	MC	SM5310B/9060A

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	<b>MW-13A-2011 (DISSOLVED)</b>	<b>Date Sampled:</b>	<b>06/23/11</b>
<b>Lab Sample ID:</b>	<b>T79594-1F</b>	<b>Date Received:</b>	<b>06/24/11</b>
<b>Matrix:</b>	<b>AQ - Groundwater Filtered</b>	<b>Percent Solids:</b>	<b>n/a</b>
<b>Project:</b>	<b>UTC-Metzler/ 3200 Main St. Keokuk, IA</b>		

**Dissolved Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	78700	100	ug/l	1	06/27/11	06/30/11 NS	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>
Manganese	9330	15	ug/l	1	06/27/11	06/30/11 NS	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA5870

(2) Prep QC Batch: MP15083

---

RL = Reporting Limit

## Report of Analysis

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Client Sample ID:	MW-13-2011	Date Sampled:	06/23/11				
Lab Sample ID:	T79594-2	Date Received:	06/24/11				
Matrix:	AQ - Ground Water	Percent Solids:	n/a				
Method:	SW846 8260B						
Project:	UTC-Metzler/ 3200 Main St. Keokuk, IA						
Run #1	File ID G002449.D	DF 1	Analyzed 06/30/11	By JL	Prep Date n/a	Prep Batch n/a	Analytical Batch VG105
Run #2	X0074009.D	50	07/05/11	JL	n/a	n/a	VX1090
Purge Volume							
Run #1	5.0 ml						
Run #2	5.0 ml						

## SW-846 8260B

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	0.0024	0.0010	0.00025	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
71-36-3	n-Butyl Alcohol	ND	0.050	0.033	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	0.0020	0.0010	0.00020	mg/l	
75-15-0	Carbon disulfide	0.0014	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	0.0667	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	0.131	0.0010	0.00040	mg/l	
107-06-2	1,2-Dichloroethane	0.0037	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	0.0134	0.0010	0.00025	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
156-59-2	cis-1,2-Dichloroethylene	0.310 <sup>a</sup>	0.050	0.012	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
156-60-5	trans-1,2-Dichloroethylene	0.0033	0.0010	0.00030	mg/l	
540-59-0	1,2-Dichloroethene (total)	0.310 <sup>a</sup>	0.10	0.027	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	0.00026	0.0010	0.00025	mg/l	J
110-54-3	Hexane	ND	0.0020	0.00066	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
78-83-1	Isobutyl alcohol	ND	0.050	0.023	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
75-09-2	Methylene chloride	6.39 <sup>a</sup>	0.25	0.050	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0151	0.0010	0.00031	mg/l	

ND = Not detected      MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID:	MW-13-2011	Date Sampled:	06/23/11
Lab Sample ID:	T79594-2	Date Received:	06/24/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC-Metzler/ 3200 Main St. Keokuk, IA		

## SW-846 8260B

CAS No.	Compound	Result	RL	MDL	Units	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.0014	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	0.0042	0.0010	0.00036	mg/l	
127-18-4	Tetrachloroethylene	0.270 <sup>a</sup>	0.050	0.017	mg/l	
108-88-3	Toluene	0.00058	0.0010	0.00026	mg/l	J
79-01-6	Trichloroethylene	0.602 <sup>a</sup>	0.050	0.018	mg/l	
75-01-4	Vinyl chloride	0.0114	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%	90%	79-122%
17060-07-0	1,2-Dichloroethane-D4	89%	84%	75-121%
2037-26-5	Toluene-D8	91%	89%	87-119%
460-00-4	4-Bromofluorobenzene	93%	89%	80-133%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-13-2011	<b>Date Sampled:</b>	06/23/11
<b>Lab Sample ID:</b>	T79594-2	<b>Date Received:</b>	06/24/11
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSKSOP-147/175		
<b>Project:</b>	UTC-Metzler/ 3200 Main St. Keokuk, IA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	FF12500.D	1	06/30/11	AFL	n/a	n/a	F:GFF518
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	1.11	0.00050	0.00016	mg/l	
74-84-0	Ethane	0.00623	0.0010	0.00032	mg/l	
74-85-1	Ethene	0.00677	0.0010	0.00043	mg/l	

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID:	MW-13-2011	Date Sampled:	06/23/11
Lab Sample ID:	T79594-2	Date Received:	06/24/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	UTC-Metzler/ 3200 Main St. Keokuk, IA		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO <sub>3</sub>	498	10	mg/l	1	07/05/11 10:00	MC	SM 2320B
Chloride	66.9	10	mg/l	20	07/04/11 22:56	ES	EPA 300/SW846 9056
Nitrogen, Nitrate <sup>a</sup>	< 0.11	0.11	mg/l	1	06/24/11 17:52	CV	EPA 353.2
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	06/24/11 17:52	CV	EPA 353.2
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	06/24/11 17:01	CV	EPA 353.2
Sulfate	164	10	mg/l	20	07/04/11 22:56	ES	EPA 300/SW846 9056
Sulfide	< 0.20	0.20	mg/l	1	06/30/11 09:00	KD	SM 4500S+ F
Total Organic Carbon	3.9	1.0	mg/l	1	07/03/11 11:38	MC	SM5310B/9060A

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

## Report of Analysis

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Client Sample ID:	MW-13-2011 (DISSOLVED)	Date Sampled:	06/23/11
Lab Sample ID:	T79594-2F	Date Received:	06/24/11
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	UTC-Metzler/ 3200 Main St. Keokuk, IA		

## Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	711	100	ug/l	1	06/27/11	06/30/11 NS	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>
Manganese	2590	15	ug/l	1	06/27/11	06/30/11 NS	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA5870

(2) Prep QC Batch: MP15083

RL = Reporting Limit

## Report of Analysis

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3

Client Sample ID: MW-13-2011-DUP

Lab Sample ID: T79594-3

Date Sampled: 06/23/11

Matrix: AQ - Ground Water

Date Received: 06/24/11

Method: SW846 8260B

Percent Solids: n/a

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G002450.D	1	06/30/11	JL	n/a	n/a	VG105
Run #2	X0074010.D	50	07/05/11	JL	n/a	n/a	VX1090

## Purge Volume

Run #1 5.0 ml

Run #2 5.0 ml

## SW-846 8260B

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	0.0024	0.0010	0.00025	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
71-36-3	n-Butyl Alcohol	ND	0.050	0.033	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	0.0019	0.0010	0.00020	mg/l	
75-15-0	Carbon disulfide	0.0014	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	0.0666	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	0.129	0.0010	0.00040	mg/l	
107-06-2	1,2-Dichloroethane	0.0038	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	0.0135	0.0010	0.00025	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
156-59-2	cis-1,2-Dichloroethylene	0.309 <sup>a</sup>	0.050	0.012	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
156-60-5	trans-1,2-Dichloroethylene	0.0031	0.0010	0.00030	mg/l	
540-59-0	1,2-Dichloroethene (total)	0.309 <sup>a</sup>	0.10	0.027	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	0.00026	0.0010	0.00025	mg/l	J
110-54-3	Hexane	ND	0.0020	0.00066	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
78-83-1	Isobutyl alcohol	ND	0.050	0.023	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
75-09-2	Methylene chloride	6.53 <sup>a</sup>	0.25	0.050	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	0.0154	0.0010	0.00031	mg/l	

ND = Not detected MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID: MW-13-2011-DUP

Lab Sample ID: T79594-3

Matrix: AQ - Ground Water

Method: SW846 8260B

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Date Sampled: 06/23/11

Date Received: 06/24/11

Percent Solids: n/a

## SW-846 8260B

CAS No.	Compound	Result	RL	MDL	Units	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.0015	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	0.0043	0.0010	0.00036	mg/l	
127-18-4	Tetrachloroethylene	0.272 <sup>a</sup>	0.050	0.017	mg/l	
108-88-3	Toluene	0.00056	0.0010	0.00026	mg/l	J
79-01-6	Trichloroethylene	0.589 <sup>a</sup>	0.050	0.018	mg/l	
75-01-4	Vinyl chloride	0.0115	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%	92%	79-122%
17060-07-0	1,2-Dichloroethane-D4	86%	85%	75-121%
2037-26-5	Toluene-D8	90%	89%	87-119%
460-00-4	4-Bromofluorobenzene	90%	87%	80-133%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID:	MW-13-2011-DUP	Date Sampled:	06/23/11
Lab Sample ID:	T79594-3	Date Received:	06/24/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	RSKSOP-147/175		
Project:	UTC-Metzler/ 3200 Main St. Keokuk, IA		
Run #1 <sup>a</sup>	File ID FF12504.D	DF 1	Analyzed 06/30/11 By AFL Prep Date n/a Prep Batch n/a Analytical Batch F:GFF518
Run #2 <sup>a</sup>	File ID FF12512.D	DF 5	Analyzed 07/01/11 By AFL Prep Date n/a Prep Batch n/a Analytical Batch F:GFF519

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	1.06 <sup>b</sup>	0.0025	0.00080	mg/l	
74-84-0	Ethane	0.00675	0.0010	0.00032	mg/l	
74-85-1	Ethene	0.00732	0.0010	0.00043	mg/l	

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID:	MW-13-2011-DUP	Date Sampled:	06/23/11
Lab Sample ID:	T79594-3	Date Received:	06/24/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	UTC-Metzler/ 3200 Main St. Keokuk, IA		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO <sub>3</sub>	338	10	mg/l	1	07/05/11 10:00	MC	SM 2320B
Chloride	63.2	5.0	mg/l	10	07/04/11 23:47	ES	EPA 300/SW846 9056
Nitrogen, Nitrate <sup>a</sup>	0.11	0.11	mg/l	1	06/24/11 17:55	CV	EPA 353.2
Nitrogen, Nitrate + Nitrite	0.17	0.10	mg/l	1	06/24/11 17:55	CV	EPA 353.2
Nitrogen, Nitrite	0.057	0.010	mg/l	1	06/24/11 17:03	CV	EPA 353.2
Sulfate	173	5.0	mg/l	10	07/04/11 23:47	ES	EPA 300/SW846 9056
Sulfide	< 0.20	0.20	mg/l	1	06/30/11 09:00	KD	SM 4500S+ F
Total Organic Carbon	3.3	1.0	mg/l	1	07/03/11 12:17	MC	SM5310B/9060A

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

**Report of Analysis**

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Client Sample ID:	MW-13-2011-DUP (DISSOLVED)	Date Sampled:	06/23/11
Lab Sample ID:	T79594-3F	Date Received:	06/24/11
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	UTC-Metzler/ 3200 Main St. Keokuk, IA		

**Dissolved Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	561	100	ug/l	1	06/27/11	06/30/11 NS	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>
Manganese	2610	15	ug/l	1	06/27/11	06/30/11 NS	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA5870

(2) Prep QC Batch: MP15083

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RL = Reporting Limit

## Report of Analysis

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**Client Sample ID:** MW-13B-2011  
**Lab Sample ID:** T79594-4  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8260B  
**Project:** UTC-Metzler/ 3200 Main St. Keokuk, IA

**Date Sampled:** 06/23/11  
**Date Received:** 06/24/11  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G002497.D	1	07/01/11	JL	n/a	n/a	VG106
Run #2							

Purge Volume  
Run #1 5.0 ml  
Run #2

## SW-846 8260B

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
71-36-3	n-Butyl Alcohol	ND	0.050	0.033	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
540-59-0	1,2-Dichloroethene (total)	ND	0.0020	0.00054	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
110-54-3	Hexane	ND	0.0020	0.00066	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
78-83-1	Isobutyl alcohol	ND	0.050	0.023	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	

ND = Not detected MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID:	MW-13B-2011	Date Sampled:	06/23/11
Lab Sample ID:	T79594-4	Date Received:	06/24/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC-Metzler/ 3200 Main St. Keokuk, IA		

## SW-846 8260B

CAS No.	Compound	Result	RL	MDL	Units	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
127-18-4	Tetrachloroethylene	0.00033	0.0010	0.00033	mg/l	J
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	0.00070	0.0010	0.00036	mg/l	J
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		79-122%
17060-07-0	1,2-Dichloroethane-D4	88%		75-121%
2037-26-5	Toluene-D8	88%		87-119%
460-00-4	4-Bromofluorobenzene	88%		80-133%

ND = Not detected MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID:	MW-13B-2011	Date Sampled:	06/23/11
Lab Sample ID:	T79594-4	Date Received:	06/24/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	RSKSOP-147/175		
Project:	UTC-Metzler/ 3200 Main St. Keokuk, IA		

Run #1 <sup>a</sup>	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	FF12505.D	1	06/30/11	AFL	n/a	n/a	F:GFF518

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.00424	0.00050	0.00016	mg/l	
74-84-0	Ethane	ND	0.0010	0.00032	mg/l	
74-85-1	Ethene	ND	0.0010	0.00043	mg/l	

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID:	MW-13B-2011	Date Sampled:	06/23/11
Lab Sample ID:	T79594-4	Date Received:	06/24/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	UTC-Metzler/ 3200 Main St. Keokuk, IA		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO <sub>3</sub>	396	10	mg/l	1	07/05/11 10:00	MC	SM 2320B
Chloride	17.9	0.50	mg/l	1	07/05/11 00:38	ES	EPA 300/SW846 9056
Nitrogen, Nitrate <sup>a</sup>	0.13	0.11	mg/l	1	06/24/11 17:57	CV	EPA 353.2
Nitrogen, Nitrate + Nitrite	0.17	0.10	mg/l	1	06/24/11 17:57	CV	EPA 353.2
Nitrogen, Nitrite	0.043	0.010	mg/l	1	06/24/11 17:03	CV	EPA 353.2
Sulfate	503	50	mg/l	100	07/04/11 18:07	ES	EPA 300/SW846 9056
Sulfide	< 0.20	0.20	mg/l	1	06/30/11 09:00	KD	SM 4500S+ F
Total Organic Carbon	3.7	1.0	mg/l	1	07/03/11 12:33	MC	SM5310B/9060A

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

## Report of Analysis

Page 1 of 1

3.8

3

Client Sample ID:	MW-13B-2011 (DISSOLVED)	Date Sampled:	06/23/11
Lab Sample ID:	T79594-4F	Date Received:	06/24/11
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	UTC-Metzler/ 3200 Main St. Keokuk, IA		

## Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	1390	100	ug/l	1	06/27/11	06/30/11 NS	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>
Manganese	371	15	ug/l	1	06/27/11	06/30/11 NS	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA5870

(2) Prep QC Batch: MP15083

RL = Reporting Limit

## Report of Analysis

Page 1 of 2

Client Sample ID:	EB-13B-2011	Date Sampled:	06/23/11
Lab Sample ID:	T79594-5	Date Received:	06/24/11
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Method:	SW846 8260B		

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G002480.D	1	07/01/11	JL	n/a	n/a	VG106
Run #2							

Purge Volume
Run #1    5.0 ml
Run #2

## SW-846 8260B

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
71-36-3	n-Butyl Alcohol	ND	0.050	0.033	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
540-59-0	1,2-Dichloroethene (total)	ND	0.0020	0.00054	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
110-54-3	Hexane	ND	0.0020	0.00066	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
78-83-1	Isobutyl alcohol	ND	0.050	0.023	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	

ND = Not detected      MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

3

Client Sample ID:	EB-13B-2011	Date Sampled:	06/23/11
Lab Sample ID:	T79594-5	Date Received:	06/24/11
Matrix:	AQ - Equipment Blank	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC-Metzler/ 3200 Main St. Keokuk, IA		

## SW-846 8260B

CAS No.	Compound	Result	RL	MDL	Units	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		79-122%
17060-07-0	1,2-Dichloroethane-D4	89%		75-121%
2037-26-5	Toluene-D8	90%		87-119%
460-00-4	4-Bromofluorobenzene	90%		80-133%

ND = Not detected MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Accutest Laboratories

## Report of Analysis

Page 1 of 2

**Client Sample ID:** TRIP BLANK  
**Lab Sample ID:** T79594-6  
**Matrix:** AQ - Trip Blank Water  
**Method:** SW846 8260B  
**Project:** UTC-Metzler/ 3200 Main St. Keokuk, IA

**Date Sampled:** 06/23/11  
**Date Received:** 06/24/11  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G002481.D	1	07/01/11	JL	n/a	n/a	VG106
Run #2							

**Purge Volume**  
**Run #1** 5.0 ml  
**Run #2**

## SW-846 8260B

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	0.0120	0.050	0.010	mg/l	J
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
71-36-3	n-Butyl Alcohol	ND	0.050	0.033	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
540-59-0	1,2-Dichloroethene (total)	ND	0.0020	0.00054	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
110-54-3	Hexane	ND	0.0020	0.00066	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
78-83-1	Isobutyl alcohol	ND	0.050	0.023	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	

ND = Not detected      MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Accutest Laboratories

## Report of Analysis

Page 2 of 2

Client Sample ID:	TRIP BLANK	Date Sampled:	06/23/11
Lab Sample ID:	T79594-6	Date Received:	06/24/11
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	UTC-Metzler/ 3200 Main St. Keokuk, IA		

## SW-846 8260B

CAS No.	Compound	Result	RL	MDL	Units	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		79-122%
17060-07-0	1,2-Dichloroethane-D4	92%		75-121%
2037-26-5	Toluene-D8	94%		87-119%
460-00-4	4-Bromofluorobenzene	93%		80-133%

ND = Not detected MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



## CHAIN OF CUSTODY

PAGE 1 OF 1

10165 Harwin Dr, Ste 150 Houston, TX 77036  
TEL. 713-271-4700 FAX: 713-271-4770  
www.accutest.com

FED-EX Tracking # 486899909392 Bottle Order Control #  
Accutest Order # T79594 Accutest Job # T79594

Client / Reporting Information		Project Information										Requested Analyses		Matrix Codes							
Company Name <b>URS</b>		Project Name: <b>UTC Keokuk</b>																			
Street Address <b>8300 College Blvd, Suite 200</b>		Street <b>3200 Main</b>		Billing Information (if different from Report to)																	
City <b>Overland Park</b>	State <b>KS</b>	City <b>Keokuk</b>	State <b>IA</b>	Company Name																	
Project Contact <b>David Dods</b>		E-mail <b>16530531</b>		Project #								Street Address									
Phone # <b>913-344-1022</b>		Fax #		Client Purchase Order #								City	State	Zip							
Sampler(s) Name(s) <b>Charles Arthur</b>		Phone # <b>816-668-7763</b>		Project Manager								Attention:									
Collection																					
Accutest Sample #	Field ID / Point of Collection		Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	Number of preserved Bottles	V8200SL	Methane, Ethane, Ethene (RSt<-175)	Dissolved Iron and Mg (6010) LAB FILTER	Chloride and Sulfate (300)	Nitrate, Nitrite, and Alkalinity	Sulfide	TOC				
	1.	MW-13A-2011	6-23	835	CA	GW	12 8	1	3										LAB USE ONLY		
2.	MW-13-2011	6-23	955	CA	GW	12 8	1	3													
3.	MW-13-2011-DVP	6-23	955	CA	GW	12 8	1	3													
4.	MW-13B-2011	6-23	1140	CA	GW	12 8	1	3													
5.	E3-13B-2011	6-23	1210	CA	GW	3 3															
6.	Trip Blank																				
7.	Temp Blank																				
Turnaround Time (Business days)																					
Data Deliverable Information																		Comments / Special Instructions			
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 4 Day RUSH <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Lablink														<input type="checkbox"/> Commercial "A" (Level 1) <input checked="" type="checkbox"/> Commercial "E" (Level 2) <input type="checkbox"/> FULT1 (Level 3+4) <input type="checkbox"/> REDT1 (Level 3+4) <input type="checkbox"/> Commercial "C"				<input type="checkbox"/> TRRP <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____  VOA Special List  Commercial "A" = Results Only Commercial "B" = Results + QC Summary Commercial "C" = Results + QC & Surrogate Summary			
Sample Custody must be documented below each time samples change possession, including courier delivery.																					
1	Charles Arthur	Date Time: <b>6-23-11 13:00</b>	Received By: <b>FEDEX</b>	Relinquished By: <b>2</b>	Date Time: <b>6-24-11 10:02</b>	Received By: <b>FEDEX</b>	1	Intact	Preserved where applicable	On Ice	Cooler Temp.										
2		Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	2														
3		Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	3														
4		Date Time:	Received By:	Relinquished By:	Date Time:	Received By:	4														

T79594: Chain of Custody

Page 1 of 5



## Accutest Laboratories Sample Receipt Summary

Page 1 of 4

Accutest Job Number: T79594

Client: URS

Project: UTC KEOKUK

Date / Time Received: 6/24/2011

Delivery Method:

Airbill #'s: 4868-9990-9392

No. Coolers: 1

Therm ID: IRGUN4;

Temp Adjustment Factor: -0.1;

Cooler Temps (Initial/Adjusted): #1: (0.8/0.7);

### Cooler Security      Y or N

- |                           |                                     |                          |                       |                                     |                          |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Cooler Temperature      Y or N

- |                              |                                     |                          |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun                              |                          |
| 3. Cooler media:             | Ice (Bag)                           |                          |

### Quality Control Preservation      Y or N      N/A

- |                                 |                                     |                          |                                     |     |     |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|-----|-----|
| 1. Trip Blank present / cooler: | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | WTB | STB |
| 2. Trip Blank listed on COC:    | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |     |     |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |     |     |
| 4. VOCs headspace free:         | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |     |     |

### Sample Integrity - Documentation

- |  |                                     |                          |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Sample Integrity - Condition

- |                                  |                                     |                          |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |                          |

### Sample Integrity - Instructions

- |   |                                     |                                     |
|---|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            |

Comments

Houston, TX 77036  
www.accutest.com

Accutest Laboratories  
V:713.271.4700

10165 Harwin Drive  
F: 713.271.4770

T79594: Chain of Custody

Page 2 of 5

**Sample Receipt Log**

Page 2 of 4

Job #: T79594

Date / Time Received: 6/24/2011 10:10:00 AM

Initials: BG

Client: URS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T79594-1.	500 ml	1	3R	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.8	-0.1	0.7
1	T79594-1	500 ml	2	1AA	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.8	-0.1	0.7
1	T79594-1	250 ml	3	3R	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.8	-0.1	0.7
1	T79594-1	250 ml	4	3R	NaOH+ZnAc	pH > 12	IRGUN4	0.8	-0.1	0.7
1	T79594-1	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-1	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-1	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-1	40 ml	8	SUB	HCL	pH < 2	IRGUN4	0.8	-0.1	0.7
1	T79594-1	40 ml	9	SUB	HCL	pH < 2	IRGUN4	0.8	-0.1	0.7
1	T79594-1	40 ml	10	SUB	HCL	pH < 2	IRGUN4	0.8	-0.1	0.7
1	T79594-1	40 ml	11	3R	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-1	40 ml	12	3R	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-2	500 ml	1	3R	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.8	-0.1	0.7
1	T79594-2	500 ml	2	1AA	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.8	-0.1	0.7
1	T79594-2	250 ml	3	3R	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.8	-0.1	0.7
1	T79594-2	250 ml	4	3R	NaOH+ZnAc	pH > 12	IRGUN4	0.8	-0.1	0.7
1	T79594-2	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-2	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-2	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-2	40 ml	8	SUB	HCL	pH < 2	IRGUN4	0.8	-0.1	0.7
1	T79594-2	40 ml	9	SUB	HCL	pH < 2	IRGUN4	0.8	-0.1	0.7
1	T79594-2	40 ml	10	SUB	HCL	pH < 2	IRGUN4	0.8	-0.1	0.7
1	T79594-2	40 ml	11	3R	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7

**T79594: Chain of Custody****Page 3 of 5**

## Sample Receipt Log

Page 3 of 4

Job #: T79594

Date / Time Received: 6/24/2011 10:10:00 AM

Initials: BG

Client: URS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T79594-2	40 ml	12	3R	HCL	Note #1 - Preservative to be checked by analyst at the instrument. Note #2 - Preservative check not applicable.	IRGUN4	0.8	-0.1	0.7
1	T79594-3	500 ml	1	3R	N/P		IRGUN4	0.8	-0.1	0.7
1	T79594-3	500 ml	2	1AA	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.8	-0.1	0.7
1	T79594-3	250 ml	3	3R	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.8	-0.1	0.7
1	T79594-3	250 ml	4	3R	NaOH+ZnAc	pH > 12	IRGUN4	0.8	-0.1	0.7
1	T79594-3	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-3	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-3	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-3	40 ml	8	SUB	HCL	pH < 2	IRGUN4	0.8	-0.1	0.7
1	T79594-3	40 ml	9	SUB	HCL	pH < 2	IRGUN4	0.8	-0.1	0.7
1	T79594-3	40 ml	10	SUB	HCL	pH < 2	IRGUN4	0.8	-0.1	0.7
1	T79594-3	40 ml	11	3R	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-3	40 ml	12	3R	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-4	500 ml	1	3R	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.8	-0.1	0.7
1	T79594-4	500 ml	2	1AA	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.8	-0.1	0.7
1	T79594-4	250 ml	3	3R	N/P	Note #2 - Preservative check not applicable.	IRGUN4	0.8	-0.1	0.7
1	T79594-4	250 ml	4	3R	NaOH+ZnAc	pH > 12	IRGUN4	0.8	-0.1	0.7
1	T79594-4	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-4	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-4	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-4	40 ml	8	SUB	HCL	pH < 2	IRGUN4	0.8	-0.1	0.7
1	T79594-4	40 ml	9	SUB	HCL	pH < 2	IRGUN4	0.8	-0.1	0.7
1	T79594-4	40 ml	10	SUB	HCL	pH < 2	IRGUN4	0.8	-0.1	0.7

**T79594: Chain of Custody**

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## Sample Receipt Log

Page 4 of 4

Job #: T79594

Date / Time Received: 6/24/2011 10:10:00 AM

Initials: BG

Client: URS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T79594-4	40 ml	11	3R	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-4	40 ml	12	3R	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-5	40 ml	1	VR	HCL	Note #2 - Preservative check not applicable.	IRGUN4	0.8	-0.1	0.7
1	T79594-5	40 ml	2	VR	HCL	Note #2 - Preservative check not applicable.	IRGUN4	0.8	-0.1	0.7
1	T79594-5	40 ml	3	VR	HCL	Note #2 - Preservative check not applicable.	IRGUN4	0.8	-0.1	0.7
1	T79594-5	250 ml	4	3R	NaOH+ZnAc	pH > 12	IRGUN4	0.8	-0.1	0.7
1	T79594-5	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-5	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-5	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-5	40 ml	8	SUB	HCL	pH < 2	IRGUN4	0.8	-0.1	0.7
1	T79594-5	40 ml	9	SUB	HCL	pH < 2	IRGUN4	0.8	-0.1	0.7
1	T79594-5	40 ml	10	SUB	HCL	pH < 2	IRGUN4	0.8	-0.1	0.7
1	T79594-5	40 ml	11	3R	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-5	40 ml	12	3R	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-6	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7
1	T79594-6	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	0.8	-0.1	0.7

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**T79594: Chain of Custody**

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## GC/MS Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 2

Job Number: T79594

Account: URSKSOP URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG105-MB	G002441.D	1	06/30/11	JL	n/a	n/a	VG105

The QC reported here applies to the following samples:

Method: SW846 8260B

T79594-1, T79594-2, T79594-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.25	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.25	ug/l	
75-25-2	Bromoform	ND	1.0	0.35	ug/l	
71-36-3	n-Butyl Alcohol	ND	50	33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.36	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.36	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.29	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.40	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.29	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.54	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
591-78-6	2-Hexanone	ND	10	2.4	ug/l	
78-83-1	Isobutyl alcohol	ND	50	23	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.31	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.28	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.31	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.38	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.26	ug/l	

## Method Blank Summary

Page 2 of 2

Job Number: T79594

Account: URSKSOP URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG105-MB	G002441.D	1	06/30/11	JL	n/a	n/a	VG105

The QC reported here applies to the following samples:

Method: SW846 8260B

T79594-1, T79594-2, T79594-3

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethylene	ND	1.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.40	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	88%
17060-07-0	1,2-Dichloroethane-D4	89%
2037-26-5	Toluene-D8	93%
460-00-4	4-Bromofluorobenzene	91%

**Method Blank Summary**

Job Number: T79594

Account: URSKSOP URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG106-MB	G002475.D	1	07/01/11	JL	n/a	n/a	VG106

The QC reported here applies to the following samples:

Method: SW846 8260B

T79594-4, T79594-5, T79594-6

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.25	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.25	ug/l	
75-25-2	Bromoform	ND	1.0	0.35	ug/l	
71-36-3	n-Butyl Alcohol	ND	50	33	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.36	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.36	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.29	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.40	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.29	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.54	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
110-54-3	Hexane	ND	2.0	0.66	ug/l	
591-78-6	2-Hexanone	ND	10	2.4	ug/l	
78-83-1	Isobutyl alcohol	ND	50	23	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.31	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.27	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.28	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.31	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.38	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.26	ug/l	

**Method Blank Summary**

Job Number: T79594

Account: URSKSOP URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG106-MB	G002475.D	1	07/01/11	JL	n/a	n/a	VG106

The QC reported here applies to the following samples:

Method: SW846 8260B

T79594-4, T79594-5, T79594-6

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethylene	ND	1.0	0.36	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.40	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	87%
17060-07-0	1,2-Dichloroethane-D4	87%
2037-26-5	Toluene-D8	91%
460-00-4	4-Bromofluorobenzene	89%

## Method Blank Summary

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Job Number: T79594

Account: URSKSOP URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1090-MB	X0073994.D	1	07/05/11	JL	n/a	n/a	VX1090

The QC reported here applies to the following samples:

Method: SW846 8260B

T79594-2, T79594-3

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	2.0	0.54	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.36	ug/l	

CAS No. Surrogate Recoveries Limits

1868-53-7	Dibromofluoromethane	92%	79-122%
17060-07-0	1,2-Dichloroethane-D4	86%	75-121%
2037-26-5	Toluene-D8	89%	87-119%
460-00-4	4-Bromofluorobenzene	88%	80-133%

# Blank Spike Summary

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Job Number: T79594

Account: URSKSOP URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG105-BS	G002439.D	1	06/30/11	JL	n/a	n/a	VG105

The QC reported here applies to the following samples:

Method: SW846 8260B

T79594-1, T79594-2, T79594-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	120	96	62-124
71-43-2	Benzene	25	22.9	92	76-118
75-27-4	Bromodichloromethane	25	23.6	94	68-107
75-25-2	Bromoform	25	23.4	94	64-103
71-36-3	n-Butyl Alcohol	500	222	44	40-141
108-90-7	Chlorobenzene	25	23.7	95	74-111
75-00-3	Chloroethane	25	24.0	96	75-135
67-66-3	Chloroform	25	22.7	91	75-117
75-15-0	Carbon disulfide	25	22.0	88	57-126
56-23-5	Carbon tetrachloride	25	25.1	100	75-125
75-34-3	1,1-Dichloroethane	25	22.5	90	76-121
75-35-4	1,1-Dichloroethylene	25	24.5	98	71-128
107-06-2	1,2-Dichloroethane	25	22.6	90	70-111
78-87-5	1,2-Dichloropropane	25	23.1	92	71-113
124-48-1	Dibromochloromethane	25	23.6	94	69-104
156-59-2	cis-1,2-Dichloroethylene	25	23.2	93	68-113
10061-01-5	cis-1,3-Dichloropropene	25	24.0	96	71-111
156-60-5	trans-1,2-Dichloroethylene	25	24.1	96	70-125
540-59-0	1,2-Dichloroethene (total)	50	47.3	95	71-117
10061-02-6	trans-1,3-Dichloropropene	25	26.5	106	75-111
100-41-4	Ethylbenzene	25	23.8	95	75-112
110-54-3	Hexane	25	29.4	118	68-130
591-78-6	2-Hexanone	125	111	89	60-113
78-83-1	Isobutyl alcohol	500	470	94	70-130
108-10-1	4-Methyl-2-pentanone	125	113	90	63-115
74-83-9	Methyl bromide	25	24.8	99	59-132
74-87-3	Methyl chloride	25	21.2	85	56-150
75-09-2	Methylene chloride	25	22.7	91	70-113
78-93-3	Methyl ethyl ketone	125	111	89	62-117
1634-04-4	Methyl Tert Butyl Ether	25	21.3	85	65-113
100-42-5	Styrene	25	24.0	96	66-100
71-55-6	1,1,1-Trichloroethane	25	24.6	98	76-125
79-34-5	1,1,2,2-Tetrachloroethane	25	21.4	86	67-110
79-00-5	1,1,2-Trichloroethane	25	23.0	92	69-107
127-18-4	Tetrachloroethylene	25	24.4	98	77-120
108-88-3	Toluene	25	23.8	95	77-114

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## Blank Spike Summary

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Job Number: T79594

Account: URSKSOP URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG105-BS	G002439.D	1	06/30/11	JL	n/a	n/a	VG105

The QC reported here applies to the following samples:

Method: SW846 8260B

T79594-1, T79594-2, T79594-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
79-01-6	Trichloroethylene	25	24.1	96	74-117
75-01-4	Vinyl chloride	25	20.1	80	64-121
1330-20-7	Xylene (total)	75	73.0	97	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	91%	79-122%
17060-07-0	1,2-Dichloroethane-D4	86%	75-121%
2037-26-5	Toluene-D8	94%	87-119%
460-00-4	4-Bromofluorobenzene	91%	80-133%

# Blank Spike Summary

Page 1 of 2

Job Number: T79594

Account: URSKSOP URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG106-BS	G002473.D	1	06/30/11	JL	n/a	n/a	VG106

The QC reported here applies to the following samples:

Method: SW846 8260B

T79594-4, T79594-5, T79594-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	117	94	62-124
71-43-2	Benzene	25	22.9	92	76-118
75-27-4	Bromodichloromethane	25	22.8	91	68-107
75-25-2	Bromoform	25	22.3	89	64-103
71-36-3	n-Butyl Alcohol	500	309	62	40-141
108-90-7	Chlorobenzene	25	23.3	93	74-111
75-00-3	Chloroethane	25	23.3	93	75-135
67-66-3	Chloroform	25	22.4	90	75-117
75-15-0	Carbon disulfide	25	20.6	82	57-126
56-23-5	Carbon tetrachloride	25	25.0	100	75-125
75-34-3	1,1-Dichloroethane	25	22.1	88	76-121
75-35-4	1,1-Dichloroethylene	25	24.4	98	71-128
107-06-2	1,2-Dichloroethane	25	22.6	90	70-111
78-87-5	1,2-Dichloropropane	25	22.9	92	71-113
124-48-1	Dibromochloromethane	25	23.0	92	69-104
156-59-2	cis-1,2-Dichloroethylene	25	22.4	90	68-113
10061-01-5	cis-1,3-Dichloropropene	25	23.3	93	71-111
156-60-5	trans-1,2-Dichloroethylene	25	25.1	100	70-125
540-59-0	1,2-Dichloroethene (total)	50	47.4	95	71-117
10061-02-6	trans-1,3-Dichloropropene	25	24.6	98	75-111
100-41-4	Ethylbenzene	25	23.6	94	75-112
110-54-3	Hexane	25	26.4	106	68-130
591-78-6	2-Hexanone	125	111	89	60-113
78-83-1	Isobutyl alcohol	500	485	97	70-130
108-10-1	4-Methyl-2-pentanone	125	114	91	63-115
74-83-9	Methyl bromide	25	17.7	71	59-132
74-87-3	Methyl chloride	25	19.6	78	56-150
75-09-2	Methylene chloride	25	22.7	91	70-113
78-93-3	Methyl ethyl ketone	125	112	90	62-117
1634-04-4	Methyl Tert Butyl Ether	25	21.4	86	65-113
100-42-5	Styrene	25	23.5	94	76-110
71-55-6	1,1,1-Trichloroethane	25	24.7	99	76-125
79-34-5	1,1,2,2-Tetrachloroethane	25	21.3	85	67-110
79-00-5	1,1,2-Trichloroethane	25	22.5	90	69-107
127-18-4	Tetrachloroethylene	25	23.1	92	77-120
108-88-3	Toluene	25	23.4	94	77-114

## Blank Spike Summary

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Job Number: T79594

Account: URSKSOP URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG106-BS	G002473.D	1	06/30/11	JL	n/a	n/a	VG106

The QC reported here applies to the following samples:

Method: SW846 8260B

T79594-4, T79594-5, T79594-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
79-01-6	Trichloroethylene	25	23.2	93	74-117
75-01-4	Vinyl chloride	25	18.5	74	64-121
1330-20-7	Xylene (total)	75	72.1	96	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	87%	79-122%
17060-07-0	1,2-Dichloroethane-D4	84%	75-121%
2037-26-5	Toluene-D8	90%	87-119%
460-00-4	4-Bromofluorobenzene	88%	80-133%

## Blank Spike Summary

Page 1 of 1

Job Number: T79594

Account: URSKSOP URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1090-BS	X0073992.D	1	07/05/11	JL	n/a	n/a	VX1090

The QC reported here applies to the following samples:

Method: SW846 8260B

T79594-2, T79594-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
156-59-2	cis-1,2-Dichloroethylene	25	23.8	95	68-113
540-59-0	1,2-Dichloroethene (total)	50	47.2	94	71-117
75-09-2	Methylene chloride	25	20.9	84	70-113
127-18-4	Tetrachloroethylene	25	25.4	102	77-120
79-01-6	Trichloroethylene	25	24.0	96	74-117

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	90%	79-122%
17060-07-0	1,2-Dichloroethane-D4	85%	75-121%
2037-26-5	Toluene-D8	91%	87-119%
460-00-4	4-Bromofluorobenzene	87%	80-133%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: T79594

Account: URSKSOP URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T79519-1MS	G002443.D	1	06/30/11	JL	n/a	n/a	VG105
T79519-1MSD	G002444.D	1	06/30/11	JL	n/a	n/a	VG105
T79519-1	G002442.D	1	06/30/11	JL	n/a	n/a	VG105

The QC reported here applies to the following samples:

Method: SW846 8260B

T79594-1, T79594-2, T79594-3

CAS No.	Compound	T79519-1 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	125	133	106	133	106	0	62-124/21
71-43-2	Benzene	ND	25	23.2	93	22.6	90	3	76-118/16
75-27-4	Bromodichloromethane	ND	25	23.9	96	23.4	94	2	68-107/12
75-25-2	Bromoform	ND	25	23.2	93	23.1	92	0	64-103/14
71-36-3	n-Butyl Alcohol	ND	500	194	39*	325	65	50*	40-141/19
108-90-7	Chlorobenzene	ND	25	23.9	96	23.3	93	3	74-111/11
75-00-3	Chloroethane	ND	25	30.0	120	24.7	99	19*	75-135/15
67-66-3	Chloroform	ND	25	23.6	94	22.7	91	4	75-117/12
75-15-0	Carbon disulfide	ND	25	21.1	84	20.4	82	3	57-126/13
56-23-5	Carbon tetrachloride	ND	25	24.9	100	23.7	95	5	75-125/12
75-34-3	1,1-Dichloroethane	ND	25	23.0	92	22.4	90	3	76-121/13
75-35-4	1,1-Dichloroethylene	ND	25	24.7	99	24.4	98	1	71-128/19
107-06-2	1,2-Dichloroethane	ND	25	23.4	94	23.2	93	1	70-111/14
78-87-5	1,2-Dichloropropane	ND	25	24.3	97	23.4	94	4	71-113/12
124-48-1	Dibromochloromethane	ND	25	24.2	97	23.8	95	2	69-104/12
156-59-2	cis-1,2-Dichloroethylene	ND	25	23.4	94	22.9	92	2	68-113/13
10061-01-5	cis-1,3-Dichloropropene	ND	25	22.8	91	22.4	90	2	71-111/12
156-60-5	trans-1,2-Dichloroethylene	ND	25	24.1	96	22.8	91	6	70-125/14
540-59-0	1,2-Dichloroethene (total)	ND	50	47.5	95	45.8	92	4	71-117/12
10061-02-6	trans-1,3-Dichloropropene	ND	25	24.7	99	24.2	97	2	75-111/12
100-41-4	Ethylbenzene	ND	25	23.5	94	22.9	92	3	75-112/12
110-54-3	Hexane	ND	25	18.1	72	17.5	70	3	68-130/12
591-78-6	2-Hexanone	ND	125	147	118*	146	117*	1	60-113/18
78-83-1	Isobutyl alcohol	ND	500	510	102	531	106	4	70-130/30
108-10-1	4-Methyl-2-pentanone	ND	125	146	117*	144	115	1	63-115/21
74-83-9	Methyl bromide	ND	25	26.9	108	24.6	98	9	59-132/15
74-87-3	Methyl chloride	ND	25	23.2	93	22.5	90	3	56-150/17
75-09-2	Methylene chloride	ND	25	23.1	92	22.9	92	1	70-113/13
78-93-3	Methyl ethyl ketone	ND	125	137	110	120	96	13	62-117/21
1634-04-4	Methyl Tert Butyl Ether	ND	25	21.0	84	22.2	89	6	65-113/13
100-42-5	Styrene	ND	25	23.5	94	22.5	90	4	76-110/11
71-55-6	1,1,1-Trichloroethane	ND	25	25.2	101	24.5	98	3	76-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	23.5	94	23.3	93	1	67-110/20
79-00-5	1,1,2-Trichloroethane	ND	25	24.7	99	23.0	92	7	69-107/14
127-18-4	Tetrachloroethylene	ND	25	23.2	93	21.8	87	6	77-120/13
108-88-3	Toluene	ND	25	24.0	96	22.8	91	5	77-114/12

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 2

Job Number: T79594

Account: URSKSOP URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T79519-1MS	G002443.D	1	06/30/11	JL	n/a	n/a	VG105
T79519-1MSD	G002444.D	1	06/30/11	JL	n/a	n/a	VG105
T79519-1	G002442.D	1	06/30/11	JL	n/a	n/a	VG105

The QC reported here applies to the following samples:

Method: SW846 8260B

T79594-1, T79594-2, T79594-3

CAS No.	Compound	T79519-1		Spike	MS	MS	MSD	MSD	RPD	Limits Rec/RPD
		ug/l	Q	ug/l	ug/l	%	ug/l	%		
79-01-6	Trichloroethylene	ND		25	23.8	95	23.0	92	3	74-117/12
75-01-4	Vinyl chloride	ND		25	20.6	82	20.1	80	2	64-121/19
1330-20-7	Xylene (total)	ND		75	72.5	97	69.9	93	4	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T79519-1	Limits
1868-53-7	Dibromofluoromethane	87%	91%	89%	79-122%
17060-07-0	1,2-Dichloroethane-D4	86%	88%	90%	75-121%
2037-26-5	Toluene-D8	91%	94%	93%	87-119%
460-00-4	4-Bromofluorobenzene	88%	90%	91%	80-133%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: T79594

Account: URSKSOP URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T79519-3MS	G002477.D	1	07/01/11	JL	n/a	n/a	VG106
T79519-3MSD	G002478.D	1	07/01/11	JL	n/a	n/a	VG106
T79519-3	G002476.D	1	07/01/11	JL	n/a	n/a	VG106

The QC reported here applies to the following samples:

Method: SW846 8260B

T79594-4, T79594-5, T79594-6

CAS No.	Compound	T79519-3 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	125	101	81	106	85	5	62-124/21
71-43-2	Benzene	ND	25	22.6	90	22.6	90	0	76-118/16
75-27-4	Bromodichloromethane	ND	25	23.1	92	23.2	93	0	68-107/12
75-25-2	Bromoform	ND	25	24.2	97	21.1	84	14	64-103/14
71-36-3	n-Butyl Alcohol	ND	500	220	44	205	41	7	40-141/19
108-90-7	Chlorobenzene	ND	25	22.9	92	20.9	84	9	74-111/11
75-00-3	Chloroethane	ND	25	29.1	116	27.9	112	4	75-135/15
67-66-3	Chloroform	ND	25	23.0	92	22.9	92	0	75-117/12
75-15-0	Carbon disulfide	ND	25	19.6	78	19.4	78	1	57-126/13
56-23-5	Carbon tetrachloride	ND	25	24.3	97	24.2	97	0	75-125/12
75-34-3	1,1-Dichloroethane	ND	25	20.2	81	20.0	80	1	76-121/13
75-35-4	1,1-Dichloroethylene	ND	25	22.9	92	22.3	89	3	71-128/19
107-06-2	1,2-Dichloroethane	ND	25	23.2	93	22.8	91	2	70-111/14
78-87-5	1,2-Dichloropropane	ND	25	23.3	93	23.1	92	1	71-113/12
124-48-1	Dibromochloromethane	ND	25	24.0	96	21.7	87	10	69-104/12
156-59-2	cis-1,2-Dichloroethylene	ND	25	22.8	91	22.5	90	1	68-113/13
10061-01-5	cis-1,3-Dichloropropene	ND	25	23.0	92	22.8	91	1	71-111/12
156-60-5	trans-1,2-Dichloroethylene	ND	25	22.3	89	21.7	87	3	70-125/14
540-59-0	1,2-Dichloroethene (total)	ND	50	45.1	90	44.3	89	2	71-117/12
10061-02-6	trans-1,3-Dichloropropene	ND	25	25.3	101	22.8	91	10	75-111/12
100-41-4	Ethylbenzene	ND	25	23.4	94	21.1	84	10	75-112/12
110-54-3	Hexane	ND	25	21.8	87	22.7	91	4	68-130/12
591-78-6	2-Hexanone	ND	125	165	132*	147	118*	12	60-113/18
78-83-1	Isobutyl alcohol	ND	500	274	55*	381	76	33*	70-130/30
108-10-1	4-Methyl-2-pentanone	ND	125	158	126*	159	127*	1	63-115/21
74-83-9	Methyl bromide	ND	25	22.9	92	23.4	94	2	59-132/15
74-87-3	Methyl chloride	ND	25	20.9	84	20.8	83	0	56-150/17
75-09-2	Methylene chloride	ND	25	21.8	87	21.8	87	0	70-113/13
78-93-3	Methyl ethyl ketone	ND	125	113	90	119	95	5	62-117/21
1634-04-4	Methyl Tert Butyl Ether	ND	25	20.8	83	20.2	81	3	65-113/13
100-42-5	Styrene	ND	25	23.2	93	21.1	84	9	76-110/11
71-55-6	1,1,1-Trichloroethane	ND	25	23.9	96	24.0	96	0	76-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	26.3	105	25.1	100	5	67-110/20
79-00-5	1,1,2-Trichloroethane	ND	25	24.5	98	21.7	87	12	69-107/14
127-18-4	Tetrachloroethylene	ND	25	22.1	88	20.3	81	8	77-120/13
108-88-3	Toluene	ND	25	23.5	94	21.0	84	11	77-114/12

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 2

Job Number: T79594

Account: URSKSOP URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T79519-3MS	G002477.D	1	07/01/11	JL	n/a	n/a	VG106
T79519-3MSD	G002478.D	1	07/01/11	JL	n/a	n/a	VG106
T79519-3	G002476.D	1	07/01/11	JL	n/a	n/a	VG106

The QC reported here applies to the following samples:

Method: SW846 8260B

T79594-4, T79594-5, T79594-6

CAS No.	Compound	T79519-3 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
79-01-6	Trichloroethylene	ND	25	23.3	93	23.0	92	1	74-117/12
75-01-4	Vinyl chloride	ND	25	19.0	76	19.2	77	1	64-121/19
1330-20-7	Xylene (total)	ND	75	71.5	95	64.3	86	11	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T79519-3	Limits
1868-53-7	Dibromofluoromethane	88%	89%	89%	79-122%
17060-07-0	1,2-Dichloroethane-D4	86%	90%	90%	75-121%
2037-26-5	Toluene-D8	91%	84%* a	92%	87-119%
460-00-4	4-Bromofluorobenzene	89%	90%	90%	80-133%

(a) Outside control limits biased low.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T79594

Account: URSKSOP URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T79665-1MS	X0074004.D	1	07/05/11	JL	n/a	n/a	VX1090
T79665-1MSD	X0074005.D	1	07/05/11	JL	n/a	n/a	VX1090
T79665-1	X0074003.D	1	07/05/11	JL	n/a	n/a	VX1090

The QC reported here applies to the following samples:

Method: SW846 8260B

T79594-2, T79594-3

CAS No.	Compound	T79665-1 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
156-59-2	cis-1,2-Dichloroethylene	ND	25	24.5	98	23.9	96	2	68-113/13
540-59-0	1,2-Dichloroethene (total)	ND	50	49.0	98	47.4	95	3	71-117/12
75-09-2	Methylene chloride	ND	25	21.6	86	20.6	82	5	70-113/13
127-18-4	Tetrachloroethylene	ND	25	25.4	102	24.1	96	5	77-120/13
79-01-6	Trichloroethylene	ND	25	24.7	99	24.0	96	3	74-117/12

CAS No.	Surrogate Recoveries	MS	MSD	T79665-1	Limits
1868-53-7	Dibromofluoromethane	91%	90%	92%	79-122%
17060-07-0	1,2-Dichloroethane-D4	82%	82%	84%	75-121%
2037-26-5	Toluene-D8	90%	89%	89%	87-119%
460-00-4	4-Bromofluorobenzene	85%	87%	87%	80-133%



## Metals Analysis

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: T79594  
Account: URSKSOP - URS Corporation  
Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

QC Batch ID: MP15083  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

06/27/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	16	17		
Antimony	5.0	2.3	3		
Arsenic	5.0	1.8	2		
Barium	200	.14	2.7		
Beryllium	5.0	.11	.2		
Boron	100	1.1	2.1		
Cadmium	4.0	.25	.3		
Calcium	5000	5.4	35		
Chromium	10	1.1	1.9		
Cobalt	50	.5	.8		
Copper	25	.58	5.9		
Iron	100	13	13	-2.2	<100
Lead	3.0	1.6	1.7		
Magnesium	5000	6.7	7.8		
Manganese	15	.2	7.6	-0.080	<15
Molybdenum	10	.96	1.3		
Nickel	40	.95	3.2		
Potassium	5000	53	53		
Selenium	5.0	3.2	3.2		
Silver	10	.85	.8		
Sodium	5000	130	130		
Strontium	20	.17	.4		
Thallium	10	3.2	2.6		
Tin	20	1.8	2.9		
Titanium	20	.3	.3		
Vanadium	50	.6	.6		
Zinc	20	.49	4.1		

Associated samples MP15083: T79594-1F, T79594-2F, T79594-3F, T79594-4F

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T79594

Account: URSKSOP - URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

QC Batch ID: MP15083  
Matrix Type: AQUEOUSMethods: SW846 6010B  
Units: ug/l

Prep Date:

06/27/11

06/27/11

Metal	T79588-1F Original DUP	RPD	QC Limits	T79588-1F Original MS	Spikelot MPTW4	% Rec	QC Limits
Aluminum							
Antimony							
Arsenic	anr						
Barium	anr						
Beryllium							
Boron							
Cadmium	anr						
Calcium							
Chromium	anr						
Cobalt							
Copper							
Iron	171	166	3.0	0-20	171	53200	50000
Lead	anr						
Magnesium	anr						
Manganese	1710	1660	3.0	0-20	1710	2110	400
Molybdenum							
Nickel							
Potassium							
Selenium	anr						
Silver	anr						
Sodium							
Strontium							
Thallium							
Tin							
Titanium							
Vanadium							
Zinc							

Associated samples MP15083: T79594-1F, T79594-2F, T79594-3F, T79594-4F

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T79594

Account: URSKSOP - URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

QC Batch ID: MP15083  
Matrix Type: AQUEOUSMethods: SW846 6010B  
Units: ug/l

Prep Date:

06/27/11

Metal	T79588-1F Original MSD	Spikelot MPTW4	MSD % Rec	MSD RPD	QC Limit
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Aluminum

Antimony

Arsenic anr

Barium anr

Beryllium

Boron

Cadmium anr

Calcium

Chromium anr

Cobalt

Copper

Iron 171 53900 50000 107.5 1.3 20

Lead anr

Magnesium anr

Manganese 1710 2130 400 105.0 0.9 20

Molybdenum

Nickel

Potassium

Selenium anr

Silver anr

Sodium

Strontium

Thallium

Tin

Titanium

Vanadium

Zinc

Associated samples MP15083: T79594-1F, T79594-2F, T79594-3F, T79594-4F

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T79594

Account: URSKSOP - URS Corporation

Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

QC Batch ID: MP15083  
Matrix Type: AQUEOUSMethods: SW846 6010B  
Units: ug/l

Prep Date:

06/27/11

Metal	BSP Result	Spikelot MPTW4	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	53300	50000	106.6	80-120
Lead	anr			
Magnesium	anr			
Manganese	422	400	105.5	80-120
Molybdenum				
Nickel				
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP15083: T79594-1F, T79594-2F, T79594-3F, T79594-4F

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

## SERIAL DILUTION RESULTS SUMMARY

Login Number: T79594  
 Account: URSKSOP - URS Corporation  
 Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

QC Batch ID: MP15083  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date:

06/27/11

Metal	T79588-1F Original	SDL 1:5	%DIF	QC Limits
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Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	171	156	8.7	0-10
Lead	anr			
Magnesium	anr			
Manganese	1710	1720	0.5	0-10
Molybdenum				
Nickel				
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP15083: T79594-1F, T79594-2F, T79594-3F, T79594-4F

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

6.1.4  
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## General Chemistry

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### QC Data Summaries

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**Includes the following where applicable:**

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T79594  
Account: URSKSOP - URS Corporation  
Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO <sub>3</sub>	GN32679	5.0	2.0	mg/l	2500	2480	99.0	80-120%
Chloride	GP13744/GN32668	0.50	0.0	mg/l	10	9.37	93.7	90-110%
Nitrogen, Nitrate + Nitrite	GP13605/GN32419	0.10	0.0	mg/l	1	0.987	98.7	90-110%
Nitrogen, Nitrite	GP13604/GN32418	0.010	0.0	mg/l	0.1	0.0980	98.0	90-110%
Sulfate	GP13744/GN32668	0.50	0.0	mg/l	10	9.29	92.9	90-110%
Sulfide	GN32536	0.20	0.0	mg/l	1600	1540	96.2	80-120%
Total Organic Carbon	GP13722/GN32645	1.0	0.0	mg/l	25	24.1	96.4	80-120%

Associated Samples:

Batch GN32536: T79594-1, T79594-2, T79594-3, T79594-4  
 Batch GN32679: T79594-1, T79594-2, T79594-3, T79594-4  
 Batch GP13604: T79594-1, T79594-2, T79594-3, T79594-4  
 Batch GP13605: T79594-1, T79594-2, T79594-3, T79594-4  
 Batch GP13722: T79594-1, T79594-2, T79594-3, T79594-4  
 Batch GP13744: T79594-1, T79594-2, T79594-3, T79594-4  
 (\*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T79594  
Account: URSKSOP - URS Corporation  
Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Sulfide	GN32536	mg/l	1600	1540	0.0	

Associated Samples:

Batch GN32536: T79594-1, T79594-2, T79594-3, T79594-4

(\*) Outside of QC limits

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T79594  
Account: URSKSOP - URS Corporation  
Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO <sub>3</sub>	GN32679	T79394-1	mg/l	13.0	13.0	0.0	0-10%
Chloride	GP13744/GN32668	T79594-2	mg/l	66.9	66.7	0.3	0-20%
Nitrogen, Nitrate + Nitrite	GP13605/GN32419	T79594-2	mg/l	0.0	0.0	0.0	0-20%
Nitrogen, Nitrite	GP13604/GN32418	T79594-2	mg/l	0.0050	0.0050	0.0	0-20%
Sulfate	GP13744/GN32668	T79594-2	mg/l	164	169	3.0	0-20%
Total Organic Carbon	GP13722/GN32645	T79510-1	mg/l	8.6	8.7	1.2	0-20%

Associated Samples:

Batch GN32679: T79594-1, T79594-2, T79594-3, T79594-4

Batch GP13604: T79594-1, T79594-2, T79594-3, T79594-4

Batch GP13605: T79594-1, T79594-2, T79594-3, T79594-4

Batch GP13722: T79594-1, T79594-2, T79594-3, T79594-4

Batch GP13744: T79594-1, T79594-2, T79594-3, T79594-4

(\*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T79594  
Account: URSKSOP - URS Corporation  
Project: UTC-Metzler/ 3200 Main St. Keokuk, IA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO <sub>3</sub>	GN32679	T79394-1	mg/l	13.0	25	36.0	92.0	79-122%
Chloride	GP13744/GN32668	T79594-2	mg/l	66.9	200	265	99.1	80-120%
Nitrogen, Nitrate + Nitrite	GP13605/GN32419	T79594-2	mg/l	0.0	1	1.0	100.0	90-110%
Nitrogen, Nitrite	GP13604/GN32418	T79594-2	mg/l	0.0050	0.1	0.11	105.0	90-110%
Sulfate	GP13744/GN32668	T79594-2	mg/l	164	200	369	102.5	80-120%
Total Organic Carbon	GP13722/GN32645	T79510-1	mg/l	8.6	25	36.6	112.0	75-125%

Associated Samples:

Batch GN32679: T79594-1, T79594-2, T79594-3, T79594-4

Batch GP13604: T79594-1, T79594-2, T79594-3, T79594-4

Batch GP13605: T79594-1, T79594-2, T79594-3, T79594-4

Batch GP13722: T79594-1, T79594-2, T79594-3, T79594-4

Batch GP13744: T79594-1, T79594-2, T79594-3, T79594-4

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

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## Misc. Forms

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### Custody Documents and Other Forms

(Accutest Laboratories Southeast, Inc.)

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Includes the following where applicable:

- Chain of Custody

## SUBCONTRACT COC

**10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770**

## **T79594: Chain of Custody**

Page 1 of 2

## **Accutest Laboratories Southeast, Inc.**

# ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: T79594 CLIENT: A16C PROJECT: T79594  
 DATE/TIME RECEIVED: 06/18/11 3pm (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1  
 METHOD OF DELIVERY:  FEDEX  UPS ACCUTEST COURIER  GREYHOUND  DELIVERY  OTHER  
 AIRBILL NUMBERS:

### COOLER INFORMATION

- CUSTODY SEAL NOT PRESENT OR NOT INTACT
- CHAIN OF CUSTODY NOT RECEIVED (COC)
- ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- TEMPERATURE CRITERIA NOT MET
- WET ICE PRESENT

### TRIP BLANK INFORMATION

- TRIP BLANK PROVIDED
- TRIP BLANK NOT PROVIDED
- TRIP BLANK NOT ON COC
- TRIP BLANK INTACT
- TRIP BLANK NOT INTACT
- RECEIVED WATER TRIP BLANK
- RECEIVED SOIL TRIP BLANK

### MISC. INFORMATION

NUMBER OF ENCORES? 25-GRAM \_\_\_\_\_ 5-GRAM \_\_\_\_\_  
 NUMBER OF 5035 FIELD KITS? \_\_\_\_\_  
 NUMBER OF LAB FILTERED METALS? \_\_\_\_\_

SUMMARY OF COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### TEMPERATURE INFORMATION

- IR THERM ID \_\_\_\_\_ CORR. FACTOR +4
- OBSERVED TEMPS: 24
- CORRECTED TEMPS: 28

### SAMPLE INFORMATION

- SAMPLE LABELS PRESENT ON ALL BOTTLES
- INCORRECT NUMBER OF CONTAINERS USED
- SAMPLE RECEIVED IMPROPERLY PRESERVED
- INSUFFICIENT VOLUME FOR ANALYSIS
- DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- ID'S ON COC DO NOT MATCH LABEL
- VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- UNCLEAR FILTERING OR COMPOSING INSTRUCTIONS
- SAMPLE CONTAINER(S) RECEIVED BROKEN
- % SOLIDS JAR NOT RECEIVED
- 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- RESIDUAL CHLORINE PRESENT

(APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

TECHNICIAN SIGNATURE/DATE EJ 06/18/11

NF 12/10

REVIEWER SIGNATURE/DATE Jc 6-18-11

receipt confirmation 122910.xls

8.1

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**T79594: Chain of Custody**

**Page 2 of 2**



## GC Volatiles

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### QC Data Summaries

(Accutest Laboratories Southeast, Inc.)

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 1

Job Number: T79594

Account: ALGC Accutest Laboratories Gulf Coast, Inc.

Project: URSKSOP: UTC-Keokuk

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF518-MB	FF12481.D	1	06/30/11	MM	n/a	n/a	GFF518

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T79594-1, T79594-2, T79594-3, T79594-4

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	
74-85-1	Ethene	ND	1.0	0.43	ug/l	

9.1.1  
9

## Method Blank Summary

Page 1 of 1

Job Number: T79594

Account: ALGC Accutest Laboratories Gulf Coast, Inc.

Project: URSKSOP: UTC-Keokuk

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF519-MB	FF12509.D	1	07/01/11	MM	n/a	n/a	GFF519

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T79594-1, T79594-3

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	

9.1.2  
9

## Blank Spike Summary

Page 1 of 1

Job Number: T79594

Account: ALGC Accutest Laboratories Gulf Coast, Inc.

Project: URSKSOP: UTC-Keokuk

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF518-BS	FF12482.D	1	06/30/11	MM	n/a	n/a	GFF518

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T79594-1, T79594-2, T79594-3, T79594-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
74-82-8	Methane	108	131	121	54-149
74-84-0	Ethane	219	249	114	57-143
74-85-1	Ethene	290	312	108	57-143

9.2.1

9

## Blank Spike Summary

Page 1 of 1

Job Number: T79594

Account: ALGC Accutest Laboratories Gulf Coast, Inc.

Project: URSKSOP: UTC-Keokuk

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF519-BS	FF12510.D	1	07/01/11	MM	n/a	n/a	GFF519

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T79594-1, T79594-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
74-82-8	Methane	108	76.3	71	54-149

9.2.2  
9

## Matrix Spike Summary

Page 1 of 1

Job Number: T79594

Account: ALGC Accutest Laboratories Gulf Coast, Inc.

Project: URSKSOP: UTC-Keokuk

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F83555-1MS	FF12484.D	1	06/30/11	MM	n/a	n/a	GFF518
F83555-1	FF12483.D	1	06/30/11	MM	n/a	n/a	GFF518

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T79594-1, T79594-2, T79594-3, T79594-4

CAS No.	Compound	F83555-1		Spike	MS	MS	Limits
		ug/l	Q	ug/l	ug/l	%	
74-82-8	Methane	ND		108	96.9	90	54-149
74-84-0	Ethane	ND		219	210	96	57-143
74-85-1	Ethene	ND		290	279	96	57-143

9.3.1  
9

## Matrix Spike Summary

Page 1 of 1

Job Number: T79594

Account: ALGC Accutest Laboratories Gulf Coast, Inc.

Project: URSKSOP: UTC-Keokuk

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F83644-4MS	FF12521.D	1	07/01/11	MM	n/a	n/a	GFF519
F83644-4	FF12520.D	1	07/01/11	MM	n/a	n/a	GFF519

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T79594-1, T79594-3

CAS No.	Compound	F83644-4		Spike	MS	MS	Limits
		ug/l	Q	ug/l	ug/l	%	
74-82-8	Methane	9160	E	108	7340	-1685* a54-149	

(a) Outside control limits due to high level in sample relative to spike amount.

9.3.2  
9

## Duplicate Summary

Page 1 of 1

Job Number: T79594

Account: ALGC Accutest Laboratories Gulf Coast, Inc.

Project: URSKSOP: UTC-Keokuk

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F83590-1DUP	FF12489.D	1	06/30/11	MM	n/a	n/a	GFF518
F83590-1	FF12485.D	1	06/30/11	MM	n/a	n/a	GFF518

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T79594-1, T79594-2, T79594-3, T79594-4

CAS No.	Compound	F83590-1		DUP		Q	RPD	Limits
		ug/l	Q	ug/l				
74-82-8	Methane	0.50	U	ND		7	24	
74-84-0	Ethane	1.0	U	ND		nc	23	
74-85-1	Ethene	1.0	U	ND		nc	10	

9  
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## Duplicate Summary

Page 1 of 1

Job Number: T79594

Account: ALGC Accutest Laboratories Gulf Coast, Inc.

Project: URSKSOP: UTC-Keokuk

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T79594-3DUP	FF12513.D	5	07/01/11	MM	n/a	n/a	GFF519
T79594-3	FF12512.D	5	07/01/11	MM	n/a	n/a	GFF519

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

T79594-1, T79594-3

CAS No.	Compound	T79594-3		DUP		Q	RPD	Limits
		ug/l	Q	ug/l				
74-82-8	Methane	1060		1130		6		24

9.4.2  
9